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Original Articles.

THE BEDFORD CURE.

BY WM. F. WAUGH, A.M., M.D.

MANY thousands resort yearly to Carlsbad, to find in the Bohemian mountains a renewal of the vital force, a remedy for the bodily ills. The efficacy of the treatment there is undoubted, attested as it is by the experience of centuries. But while this beneficial action is largely due to the water, the hygienic rules enforced at Carlsbad have much to do with it. Lauder Brunton says: "The Carlsbad waters contain a number of salts which are not crystallized out, and they often prove much more efficient when drunk at the springs than when the solution of the salts is taken by patients at their own homes. The great benefit which is often obtained from a course of the waters at Carlsbad is no doubt due, in great measure, to the diet and regimen which patients will follow there in company with others, but which nothing will induce them to conform to while at home."

To illustrate the necessity of advice, even as to the proper way to drink a glass of water, I will quote from the great English therapeutist, Lauder Brunton: "The secretion of bile is not only increased, but the pressure under which it is secreted is raised by sipping fluids. This is, in all probability, due to nervous influence, for it has been shown by Kronecker that taking a liquid in numerous small sips will for the time completely abolish the inhibitory action of the vagus on ths heart. It is probably in consequence of this fact that Carlsbad water, when taken in numerous sips for an hour or more, as at Carlsbad itself, is so exceedingly efficacious in hepatic diseases, while sodium sulphate, which is the main constituent of the water, was found by Rutherford to have but a very slight action as a stimulant to the liver."

How much benefit would accrue from the use of Carlsbad water were patients to eat what they please, drink the water as they please, or on the advice of some friend who knows absolutely nothing of the patient's ailment or of the action of the water? Let people go on the "go-as-you-please" plan, and the result would certainly be that while some would be benefited, the majority would go away no better than when they came, and some would be injured.

For it may be set down as certain that no medicine capable of doing good in suitable cases can fail to do harm in unsuitable cases. But this preposterous method is precisely that which has been in vogue at Bedford. Some of the visitors consult the physicians, but many more do just as they like, with the inevitable result. For this reason Bedford, endowed by Nature more richly than Carlsbad, is neglected by our citizens who flock to Carlsbad in search of the health they could more easily find at their own doors. It speaks volumes for the value of the Bedford water that, in spite of all the disadvantages under which it has existed, the popularity of the spring has continued, and visitors return to it year after year. Under the present management, a revolution has been inaugurated here. Visitors in the old days find the accommodations improved greatly in all respects. During the present season, for the first time, a resident physician has been provided, in the person of the writer. The action of the various waters is being studied, and their uses in various affections reduced to a system. The properties of the various springs differ so widely that the writer is amazed to find the same person taking *all* of these powerful remedies at one time! Surely, no one can possibly need a calcic-magnesian water, a strongly sulphuretted water and a chalybeate, at one and the same time. The hygienic regulations in force at Carlsbad are made the basis of the system being elaborated at Bedford, with such modifications as are rendered necessary by the differences in the nature and habits of the people. The Carlsbad course is admirably adapted to the phlegmatic, beer drinking German, or the Englishman, gouty with gorging on rare beef and port wine. Americans are more abstemious and more nervous, as a race, and require different regimen. And as there is no typical American as yet, but many different types, no system can be prescribed that will fit all cases alike, as with people in which the racial peculiarities are strongly marked. The regimen that will suit one German, or Englishman, or Frenchman, will be applicable to a very large percentage of his compatriots; but out of one hundred Americans selected at random, it is questionable if any ten should be put on exactly the same rules. During the fashionable season it is not possible to follow the new system, except as visitors may wish to do so. It has been proposed, however, to keep the Springs open during the remainder of the year, for the benefit of those who desire to come for motives of health alone. If this be done, patients may look upon it as a sanatorium, in which they are expected to drink the waters under the direction of the physician, and adopt the diet, exercise, clothing, hours for retiring and rising, that are best calculated to restore them to health.

But it must not be thought that the stay in the sanatorium is to be made irksome by vexatious restrictions. Such rules will be enforced as are conducive to health, and as returning health makes enjoyment possible, recreation must be provided.

Where, on the face of this earth, could a more perfect residence for gouty, plethoric, over-fat, or full-blooded men be found than Bedford in the hunting season, when game of every description, including deer, wild turkeys, pheasants, woodcock, quail, foxes, fox squirrels, gray squirrels and rabbits, abound within easy reach? The waters may then be supplemented by the pleasant exercise of the sportsman, while for those who prefer fishing, the trout, pike and bass are plentiful. The salmon with which the streams were stocked are now four years old. In winter the sleighing often lasts six weeks at a stretch, and the lake offers boating or skating in the proper seasons. Those who need rest and quiet will have it, but those who require active, physical exercise are as well supplied as in any other locality. The resources of the valley will be developed. The hotel grounds contain nearly one hundred springs, and it is possible that some of these contain valuable components not as yet known. The sulphur and chalybeate waters can be employed as baths with great advantage, and massage, electricity and physi-

cal culture employed in appropriate cases. With these and other adjuncts, it is believed that the "Bedford cure" may be brought to such perfection as will render the trip to Vichy or Carlsbad unnecessary. Nature has done her part in richly endowing this valley. It remains for us to utilize her gifts intelligently.

MEDICO-LEGAL TESTIMONY, ETC., ETC.

By THOMAS H. MANLEY, M.D.,
NEW YORK.

UNDER the above title, an article is printed in THE TIMES AND REGISTER, for July 9, by Dr. S. V. Clevenger, of Chicago, in which he speaks in a disparaging and contemptuous manner of the extensive and valuable work of one of America's most celebrated surgeons, that, it seems to me, those in our profession acquainted with the many and highly scientific contributions of his on this subject should not permit, anyone to condemn him, by inuendo, without substantial and unanswerable reasons.

What Nicholas Senn was in the way of revolutionizing the surgery of the alimentary canal, from the stomach to the rectum, B. A. Watson was, as a pioneer in the surgery of the spinal column and spinal cord. Dr. B. A. Watson, of New Jersey, who, says the writer, "bumps a few dogs on their rumps, and declares that it is impossible for the spine to be hurt in railroad accidents." To put it mildly, this is scurrilous calumny, and a deliberate falsification of fact.

Dr. Watson spent thousands of dollars in conducting a series of experiments, which occupied nearly two years, inflicting corporeal injury on over a hundred etherized dogs. That those traumatized, experimental lesions on the canine are not precisely analogous to similar injuries on man, is not denied; no more than is it the case with Senn's work on the dog's intestine. Watson worked with one end in view—*viz.*, to connect cause with effect, and to demonstrate, as he so tersely puts it, "that spinal symptoms after injury are always in direct proportion to pathological changes." He never *wrote* nor *deduced* "that it is impossible for the spine to be hurt in railroad accidents." But he did write, and incontestably demonstrated, that many of those fakirs who have gone through a railroad collision, and claim serious spinal injury, must show that there is indisputable ground for such a conclusion; something more than near-sightedness, indigestion, anæmia and hysteria, which probably wears away; after a liberal judgment is awarded; or, they are squarely and irrevocably beaten.

The experimental work of Dr. Watson on the dog, fortunately, I am able to say, it has been my good fortune to verify on more than fifty cases of spinal traumatism, in every stage and degree of lesion, in my hospital service. I have opened the canal of the spine in the living, and confirmed these conclusions, besides, in many cases, on the dead; and hence, must declare that every case presenting clear and unequivocal symptoms of spinal injury, invariably exhibited bone, vascular, meningeal or medullary lesions sufficient to account for them.

"It will be found universally, that respectable medical and surgical literature accepts the symptomatology of Erichsen as detailed in his work on 'Concussion of the Spine.'"

When?

The American profession, it must be admitted, is easily "hoodwinked" when anything comes to it, labeled foreign. Many of its members, flunkied and crowded around Lawson Tait, till their fawning, cringing servility, finally disgusted the pawkey Scotchman, and he had to practically kick them out. Treatises by celebrated (?) neurologists, when simply built upon compilation and imagination, by those who have never treated a dozen serious spinal traumatism in their lives, may be read with interest; but let no one tell us that we must swallow, *nolens volens;* their author's notions.

It would be interesting to know where any, one of such authors, as Erb, Bromwell, Ross, Gowers, Spitzka, Putnam or Knapp, ever in their lives had a surgical service which included serious spinal traumatisms.

"Erichsen's Disease" and "Railroad Spine," forsooth, are myths, pure and simple. Pathologically there is nothing, absolutely nothing, in a railroad injury which gives it an individuality peculiar to itself; and I challenge anyone to diagnose such an entity, in a case, wherein the history of the spinal condition has been withheld, or rather, the causes which led to it.

The writer says "that it should be remembered that surgeons and surgical works are concerned with the immediate results of the injuries, and do not take up the study of the nervous or mental derangement which follow upon injuries to the head, body and limbs."

This certainly is a new view, of the surgeon's authority and responsibilities in the treatment of traumatisms of the limbs, the cavities, or the trunk. The surgeon is something more than a mechanic.

He deals with a lesion of the spinal cavity, or its contents, as he would one of the cranium, thorax or the cavity of a joint; and, maintains his claim to the full authority in treatment of one, as much as the other, until it has run its course.

NOTE.—Since the above was written, a case has been brought into my service, at Harlem Hospital, which incontestably and unequivocably supports Watson's Pathology of Spinal Lesions. Man admitted July 25, 1892. Struck by a piece of falling timber in the lower, dorsal region. Immediate and complete paraplegia of the extremities. Paralysis of bladder.

July 26.—Operation of trephining the spine. Fracture through posterior laminated arch on each side; and, driven in on the cord. Hemorrhage into spinal canal. Crushed bone removed; coagulated blood clot displaced.

To-day, July 27.—Sensation and motion restored, and patient's general condition excellent. It was the ninth dorsal vertebra fractured.

OPIUM POISONING—BELLADONNA AND COFFEE AS ANTIDOTES.

BY SAMUEL WOLFE, M.D.,
PHILADELPHIA.

JULY 21, at 7 P.M., I was hurriedly called to Mrs. M., aged thirty-two years. Found her deeply narcotized, clutching an ounce bottle with all the label torn off except so much as showed the poison mark. Her pulse was 60; there was froth on her lips; the respiration was slow; the pupils were contracted. From information gained later, she had taken 1 fluidounce of laudanum about twenty minutes before, after drinking freely of beer and whiskey with her husband during the afternoon, ending the drinking bout with a quarrel. I sent at once for a stomach pump, an ounce of ground mustard, and several quarts of strong coffee; gave hypodermically $\frac{1}{50}$ gr. atropeine sulphate, then two teaspoonfuls of mustard in a tumblerful of tepid water were poured down her throat, which was only accomplished with much difficulty; the torpor and hypnotism being very decided. A little later, by means of the finger in the throat, the patient was made to retch, and vomit a very small portion of the mustard water. More was immediately given, followed by liberal drenchings with the coffee, which had by this time been brought in. The pulse had now quickened a little, and the pupils were not so much contracted, and we succeeded in getting the patient on her feet, and after a tramp of a few minutes, during which she several times sank to the floor, we allowed her to rest. Another $\frac{1}{50}$ gr. atropeine sulph. was now administered hypodermically, more coffee was given, and she was again walked. She now vomited very freely; the pupils soon dilated, but not extremely; the pulse reached 120; she breathed fairly well. At intervals she continued to vomit; the tramps, with intervals of rest, and the coffee were all continued till ten o'clock, three hours after the poison was swallowed, after which she was allowed to go to sleep for the night. In the morning there was still nausea, and headache was complained of. A full dose of magnes. sulph. had evacuated the bowels well, and small doses of bismuth subnitrate and calomel were given, with ice to suck, and a mustard plaster put on the epigastrium. The patient next morning assumed her household duties.

The justification for the recital of these details lies in the hope that it may help in estimating the antidotal powers of atropeine; that it may emphasize the necessity for allowing intervals of rest from walking where alcoholics have been liberally used before opium, and where atropeine has been administered as an antidote, and that it may tend to conduce to regularity of administration in times when excitement and disorder too often prevail.

1624 DIAMOND STREET.

IN pruritus, alkalies, such as bicarb. soda, carb. lithium, and the various alkaline waters give excellent results.
—Translated by Bing, *Gaz. de Gynecol.*

GALVANISM IN ATROPHY OF THE TESTICLES.

By ERNEST B. SANGREE, A.M., M D.,

Demonstrator of Histology in the Medico Chirurgical and Philadelphia Dental Colleges.

SIX months ago a man of thirty-five years of age came to me complaining of being generally run down; in addition to this, informing me that he feared he "was getting smaller below." This last rather general statement I took to refer to that appendage of the lower portion of the body, which from many of our male patients is likely to receive the most consideration, and consequently to be uppermost in the mind, namely, the penis. I found, however, on examination that the allusion was to his testicles. These organs had indeed grown exceedingly small, at that time being no larger than very small almonds, and of a flabby consistence, denoting marked degeneration in structure as well as diminution in size. No history of syphilis could be elicited, though he freely admitted being "one of the boys" for a good portion of his life. He did not go on sprees, but was in the habit of taking three good drinks of whiskey a day. This he stopped at my suggestion. So far he had noticed little or no loss of virile power. A general tonic was given him, and for the special trouble I decided to try galvanism. For the first month the sittings were twice a week; after that but once a week for two months longer. Sometimes the negative, at others the positive, current was used. As regards the method of administration, the indifferent pole for the time being was attached to a sponge electrode held in the hand, whilst the application to the testicles was made by rapidly touching different portions of the surface with an olive tipped urethral electrode. As a rule I began with a very mild current, gradually increasing it until a smart stinging sensation was experienced at each touch, and the cremaster muscle firmly contracted. During each application I noticed also that the testicles became considerably larger and firmer. The length of each sitting was about five minutes. After five or six applications it could easily be seen that the testicles were enlarging, and at the expiration of three months, though the applications had been comparatively few, these organs had grown as large as before; and, indeed, he was rather of the opinion that they were a little larger. Whether this increase was due simply to a proliferation of connective tissue cells or to a natural growth of the proper gland structure I do not know. Probably the former is the case; but if normal spermatozoa were found in his semen, doubtless the latter explanation would be true. Whatever the character of the tissue may be, the result was certainly a pleasant one to attain, and one that made my patient on much better terms both with the world in general and with himself in particular.

OUGHT INFANTS TO BE WASHED IMMEDIATELY AFTER BIRTH?—In a paper read before the Section on Diseases of Children at the Detroit meeting of the American Medical Association, Dr. F. S. Parsons, of Boston, says:

All wild animals wash their young directly after birth. The human mother, however, cannot perform such duties in the manner of the lower animals, whose offspring, moreover, are covered with hair, necessitating simply the drying of a wet surface; but the child, with practically no hair on the body, is ushered from an aqueous solution at a temperature of about 100° F., to an aërial temperature of from 20° to 30° lower. Apparently, to guard against this sudden cold, Nature has placed a sebaceous covering, which, if allowed to remain, would protect the child from the chilling influences of the reduced temperature. Dr. Parsons, however, does not so much object to the washing of the child as to the manner in which it is generally done, and which so often leads to catarrhal troubles, varying from simple snuffles to broncho-pneumonia. He recommends a little skirt with sleeves and hood, made of some soft unirritating material—for example, Canton flannel—in which the infant should be placed, after being quickly rubbed with pure hog's lard. Here it should remain for four or five days, when it would become accustomed to the lowered temperature, and could with much more safety be washed; but as this would not satisfy the average mother, he would advise covering the head and body with lard, then quickly placing the child in a tub of water at about 103° F., there cleaning and washing the body with a soft linen cloth. He has never seen a child so treated suffer from catarrhal troubles in any way.

—*Medical News.*

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WE are collecting material for another special number on typhoid fever. Our readers are invited to communicate their thoughts and experiences on that subject as soon as possible.

THE USE OF TITLES JUSTIFIABLE AND COMMENDABLE.

MANY people thoughtlessly criticise the prevailing custom among medical men of appending to their names, as author or editor, an enumeration of the various medical bodies to which they belong, and the titles that have been conferred upon them. If they will stop but a moment to reflect, we think that the following reasons will readily occur to their minds:

Medicine is a scientific field in which there are many workers. No individual can become acquainted with them all.

The value of any medical contribution is greatly enhanced if we know that it comes from one who may be safely trusted as reliable authority, and not from some irresponsible novice or over-zealous enthusiast. We wish to eliminate the doubtful elements as far as possible before putting any new theory to experimental test in our own practice. The scientific standing of the man who has put it forth will help considerably to reassure us. Even if we are not acquainted with him, or have never read any of his works before, we can form a pretty good idea of his standing and trustworthiness by knowing what scientific bodies of recognized standing are willing to acknowledge him as a member; what ones have conferred especially distinguished honors upon him; what positions as teacher he has held, and what other work he has done as editor and author.

Again, in many scientific bodies the members may not all know each other. To any member of such a body, perhaps in some far distant land, the writings of a fellow-member will come with additional interest and confidence.

These, and perhaps other reasons which will suggest themselves to the reader, demonstrate the utility of a custom which might otherwise be misjudged as mere ostentatious display. We are not unmindful of the fact, however, that a few men may become so eminent that they may dispense with all titles, their simple unadorned signature being sufficient to identify their work wherever found.

J. J. T.

CHOLERA NEWS.

AN epidemic of cholera is progressing toward us with a rapidity that is unpleasant to contemplate. While we do not believe that the disease, as an epidemic, will prevail in this country within the near future on account of the excellent sanitary forces standing between us and the affected regions, yet we believe that it will require the utmost vigilance and entire resources of that force to avert such a disaster.

In France, they have been compelled to acknowledge their so-called "cholerine" to be genuine cholera. To substantiate our views upon the gravity of the situation, we quote from the special Paris

correspondent of the *Lancet*, writing on July 12:

"A fortnight ago, under a pledge of absolute secrecy, I was informed that all the talk about cholera nostras and choleraic diarrhœa was concocted merely to avoid panic. It was necessary to account for the sudden deaths which were occurring in such a manner as to avoid alarming the public, and none of the authorities dared to confess that cholera prevailed in and about Paris. Then I was told that careful bacteriological researches had been made. The comma bacillus had been found in the dejections of the patients. At first, some doubts existed as to whether this was the real germ of Asiatic cholera. It was maintained that similar germs had been found in previous years, and yet no cholera epidemic, as we generally understand the term, had occurred. Also, it was found that, unlike the germ of Asiatic cholera, the comma bacillus had failed to give the usual reaction when grown in milk. Soon, however, it was seen that, if the bacillus was cultivated for three days, then its action upon milk was exactly similar to that produced by the germ of Asiatic cholera. Finally, these various experiments led to the conclusion that the comma bacillus, if not quite identical with that discovered and described by Dr. Koch in India, resembled in every respect the microbe of cholera cultivated at the Bacteriological Institute, of Saigon, by Dr. Calmette. As for the effects on the patients, they were identical—rice-water evacuations, cramps, cold at the extremities, black vomit, cyanosis, etc. Post-mortem examinations have confirmed the opinions resulting from bacteriological researches; and by the side of what seemed to be cases of only cholera nostras, there have been other, and many other, cases that in no wise differed from Asiatic cholera.

"Words are not strong enough to express the indignation that must naturally be felt at the persistent efforts made to conceal the true facts, which are now at last openly admitted and published in the medical world, though the daily political papers still continue to speak of the "choleriform" epidemic. The means of disinfection and isolation in about Paris are far from perfect."

* * * * * * * * * *

"With slight fluctuations, the present epidemic is continuing, and some cases have occurred within Paris. Perhaps an idea of the gravity of the situation may be formed from the fact that there were 217 disinfecting operations performed last year at the central stations in the course of the month of June, whereas, during the month of June this year, the number has increased to 1,223. Since the month of May last, no doubt can have been entertained that we were in the face of genuine cases of cholera, and yet it is only within the last few days that the fact has been admitted. Some 200 deaths are supposed to have occurred, and the proportion of deaths is two out of every three cases. It would be reprehensible to wait for anything more serious than this before warning the public."

But, lest we base our views too confidently upon one report, we will quote from another correspondent, date of July 13. After changing his diagnosis of the disease as "cholerine," given the week previously, he says:

"Its appearance at Ivry and at Noisy-le-Sec, both situated up-stream, cannot well be attributed to the drinking of contaminated Seine water. Is the disease really Asiatic cholera? In an able article published in the current number of *La Medecine Moderne*, Dr. Talamon, the talented editor, replies unhesitatingly in the affirmative. He regards it as proved that the comma bacillus has remained latent until lately in the soil of the Plaine St. Denis since the year 1884, the date of the last epidemic. He recalls the fact that the cholera of 1884 imported to Toulon made its first appearance in the neighborhood of Paris at St. Denis and Aubervilliers. He observes great similarity between the present epidemic and the outbreak of cholera in 1890 at at Puebla de Rugat. In both instances there was no importation from abroad, both occurred at the same time of the year and both were characterized by slow extension and endemicity. The survival of the cholera bacillus in the soil since 1884 is explained by the researches of Hueppe, Wood, and Lustig. These *savants* tell us that the cholera bacillus is both aerobic and anaerobic, according to its habitat. In the intestinal canal it is anaerobic. Its virulence is here very intense; but it is, on the other hand, more vulnerable to the destroying action of chemical agents. Hence the importance of the prompt disinfection of choleraic stools. In the superficial layers of the soil the bacillus is aerobic and its vitality becomes greatly increased. Its power of resistance is further increased by the formation of jointed spores—the "zooglees arthrospores" of Hueppe, which, forming a kind of thick, viscid network, offer protection against the influence of putrefaction and desiccation. Combined dryness and heat favor its growth, and these atmospheric conditions have been present for the last two months. It further appears that at Aubervilliers extensive road repairing has been in process for a considerable time, thus setting free colonies of microbes, which, finding their way into the drinking water, spread the disease."

Thus we may see the absolute necessity of thorough work in guarding against a possible importation of this most undesirable European product. If such efforts prove successful, we may give the business community another tangible example of the money value of a thorough public health department. Incidentally, also, we may be able to teach them the importance of having a Cabinet Secretary of Public Health.

Book Notices.

THE AMERICAN THERAPIST. A monthly medical journal, edited by JOHN AULDE, M.D., Philadelphia. Price, $1 per year. Published by the Therapist Publishing Co., New York.

This is a new aspirant in the field of medical journalism, devoted to the department of therapeutics.

DISEASES OF THE THROAT, being Volume II of the Diseases of the Nose and Throat. By FRANK HUNTINGTON BOSWORTH, A.M., M. D. Cloth, 832 pages, illustrated. Published by Wm. Wood & Co., New York.

This work is a masterly treatment of this most necessary specialty. It is a work that can be very easily followed by the general practitioner without difficulty.

A NEW PRONOUNCING DICTIONARY OF MEDICINE. By JOHN M. KEATING, M.D., Fellow College of Physicians of Philadelphia, etc., and HENRY HAMILTON. Price, cloth $5.00; sheep $6.00 net. Published by W. B. Saunders, 913 Walnut street, Philadelphia.

This is a voluminous and exhaustive handbook of medical, surgical and scientific terminology, containing concise explanations of the various terms used in medicine and the allied sciences, with phonetic pronunciation, accentuation, etymology, etc. It contains tables of bacilli, micrococci, leucomaïnes, ptomaïnes, etc., etc.

It has been the aim of the publisher to place in the hands of students and the medical profession, a work which should contain the names of hundreds of new words now being adopted, and at the same time, by leaving out the numerous obsolete terms contained in most dictionaries, keep the volume of such a size as to be most convenient for ready reference.

TABLE TALK. Published by the Table Talk Publishing Co., 1113 Chestnut St., Philadelphia. $1.00 a year; 10 cents single copy.

A magazine that tell us how to live, and how to enjoy life while we have it ought to be entitled to much more than an ordinary amount of consideration and support; the great success of *Table Talk* is therefore not a matter for wonder. Its recipes for the kitchen, its instructions and suggestions in matters relating to household management and economy, and the thoroughly practical way in which they are spread before the housewife are able proofs that it really is what it claims to be—a household magazine. The August number is now ready, and full of seasonable suggestions that the housekeeper will be the loser for not reading.

The Medical Digest.

APPARENT DEATH IN CHOLERA.—The approach of cholera is already bringing much disquietude to the nationalities of Southern Europe, particularly to those who people the Mediterranean shores. The Italian, French and Spanish ports have, on each former descent of the scourge, suffered severely, all the more that in their conscious neglect of sanitary precaution their authorities invariably lose their heads in presence of the invader and attempt to atone by a few days' feverish energy for the culpable remissness of years. But there are special causes of the uneasiness, not to say positive panic, which the slightest hint of the advance of cholera arouses in those populations. Their custom of allowing but a few hours' interval, sometimes hardly a day, to elapse between decease and burial has, on the occasion of increased mortality from epidemics, induced certificates of death to be prematurely given, with the horrible result that apparent corpses have come to life on their way to the tomb or the crematorium, and with the necessary inference that not a few must have been buried or cremated when the vital spark, so far from being extinct, might still have been kept alive. The great Tuscan pathologist, Pacini, some thirty years ago, published a memorable pamphlet on "La Morte Apparente della Colèra," and having instanced a number of cases in which

the seeming corpse had been snatched from the very brink of the grave, he proceeded to give rules by which even in collapse the apparent victim to cholera might be resuscitated. Among his prescriptions, that of the intravenous injection of bay salt, as suggested and practised in 1832 by Dr. James Macintosh, of Edinburgh, held a prominent place, and by this means, particularly in the cholera visitations of 1877 and 1884, the restoration to life of many duly certified as dead was just in the nick of time effected. In the latter year, however, a remarkable and extremely painful instance of the all too tardy resort to the practice occurred in the person of a distinguished Genose physician who, having overworked himself in the public cause during the epidemic, was himself struck down just when it was in full retreat. Every care was bestowed upon him, but he rapidly sank into collapse, and within forty-eight hours he was thought to be, and certified as, dead. Burial arrangements were in progress, and the family, sitting disconsolate in a room adjoining that in which he was laid in his shroud for burial, were expecting the arrival of the undertaker every moment, when, to their mingled horror and delight, the door was feebly opened and the apparent corpse presented himself and, in a voice scarcely audible from weakness, remonstrated with them for having left him so long unattended. Instantly they conveyed him back to bed and employed, under the best professional advice available, every means that could be imagined for his rescue, but in vain. He died a few hours afterwards of cardiac failure. The case was much commented on at the time as a typical example of what might occur on the strength of death certificates prematurely given, and so Pacini's method was reapplied with enhanced vigilance on every cholera patient who had reached the stage of collapse. The epidemic ran its course; the panic and the vigilance born of it disappeared, till now, when cholera is again within measurable distance of the Mediterranean seaboard, Pacini's name and practice are once more trotted out. The southern populations, however, must surely have learned by this time that prevention is a better safeguard than cure, be it as ingenious as it may, and that to leave their ports in a mediæval state of filth and neglect invites those cholera explosions that never occur on so sudden or so vast a scale in the more civilized harbor towns of the British Isles or of the Dutch and Danish coasts. With the experience of Naples and Spezzia still recent, sanitary rehabilitation must have made some way towards the protection of regions to which quarantine and "hygienic cordons" have ceased to give the security so long laid to their credit.—*The Lancet.*

THE CHOLERA IN KASHMIR.—Some further particulars of the cholera in Kashmir are to hand in the form of a letter from Mr. A. Neve, the senior medical missionary, who, when the epidemic commenced, was working single-handed, as his brother, Dr. Ernest Neve, had gone with a party of Moravian missionaries to Ladak. He had, however, a valuable native helper. As soon as the epidemic became at all pronounced, the British resident and all the European visitors took flight to Gulmarg, a hill sanitorium some thirty miles from Srinagar. Mr. Neve and his assistant carried out as systematic a visitation in the city as was possible, but little could be done either in the way of sanitation or of medication, as the cases were rarely seen during the first few hours, when drugs are really valuable. The hospital was as far as possible cleared out, the patients being sent away to their villages lest in their weak state they should contract the disease. "I get up very early," continues Mr. Neve, "and ride to the bazaar. The head man of each district then comes and escorts me to the new patients in the neighborhood. Many of the houses are two- or three-story and one has to climb up and down the most tortuous stairs, usually very steep and the ceilings very low, so that my thick sola topi has been almost smashed to pieces. The people all crowd round the unfortunate patient. A well-known man will have twenty or thirty neighbors sitting round him, and the women do not reserve their wails for the dead, but beat their breasts and tear their hair and scream, 'Hai, hai, wai, wai,' if any one is badly attacked. . . . . For a time there seems to be no 'purdah' and no class is specially inaccessible. In fact the well-to-do Hindus seem quite as willing to receive me as any others. In many cases one can do little; in others one can turn the scale. But although a few lives here and there have been saved, I think the moral effect

of our work is more important. The people well know the apathetic selfishness of their co-religionists and they see the missionaries and ladies as well as others, going about trying to relieve suffering." Mr. Neve's assistant succumbed to the disease, though after transfusion he rallied for a short time. The Indian government have deputed Surgeon-Colonel Harvey to make a searching inquiry into the epidemic, and he has taken up his quarters in the mission house with Dr. Ernest Neve, who has returned, Mr. Arthur Neve going out into the villages where the cholera, after having abated in the city, was becoming rife.—*The Lancet.*

MEDICAL PRACTITIONERS AND THE GENERAL ELECTION.—As a commendable example of practical politics, we wish to call the attention of our readers to the following, from *The Lancet.* We wish our American physicians took as active an interest in the welfare of their profession:

"In illustration of the fact that medical men are becoming alive to the necessities of bringing their particular case before the notice of the candidates for Parliamentary honors, we note that a deputation of medical men waited upon Mr. Byron Reed, a candidate for the Eastern Division of Bradford, to ascertain his views on matters affecting the profession in its relation with the public. The importance of the facts is not restricted to one constituency, and we therefore trust the attention of all candidates may be directed to the facts which were urged by this deputation.

"Dr. Hime, in addressing Mr. Byron Reed, alluded to the progress of unreasonable legislation which singled out the medical profession for the compulsory performance of certain duties, which the Legislature had come to regard as of great public utility. Now the medical profession objected strongly to the knowledge which they had gained, without the assistance of the Government, in their medical studies being claimed by the public as their property, under any circumstances and whether they were paid for it or not. At the present time, a medical man was under legal compulsion to sign a certificate of death for which he received no remuneration whatever. By law the certificate could only be utilized for the purpose of burial, but in practice it was utilized for insurance, for club purposes and many others. The notification of infectious diseases had also been made compulsory on medical men, a thing which was without analogy in other cases. He drew attention to the enormous number of deaths which were not inquired into, although they were not certified by any medical man. It was left absolutely optional with the registrar whether he would accept the tale of any informant as to the circumstances of a death and certify for burial or not. Throughout the whole country medical men found it not infrequently happened that, if knowing of the circumstances of a death, they thought it necessary to refuse a certificate because they considered there had been foul play, yet, when they notified that fact which was the result of their personal knowledge, the coroner might and did constantly grant certificates of burial. In order to justify him in doing so, as a rule, he sent his policeman to make inquiries. He, of course, only received the information from interested parties, and that was one-sided, and supported his (Dr. Hime's) statements.

"Other subjects calling for reform were instanced, including the question of medical and post-mortem examinations in medico-legal cases. The inadequacy and injustice of the present method, by which any practitioner, who may be practically the mainstay of the prosecution, can alone and unaided and without any supervision make a post mortem, on the report of which a life may be dependent, were strongly condemned.

"Mr. Byron Reed, in reply, expressed his astonishment at the number of facts brought to his knowledge for the first time. They were such as called for the serious consideration of the Legislature, and he promised, if returned to Parliament, that any bill bearing upon the medical profession or its relation to the public, either directly or indirectly, should not be carried without receiving his most serious attention, and he would, as far as in him lay, urge this upon those members of the House with whom he had any personal influence.

"The deputation thanked Mr. Byron Reed for the interest he took in the matter and the courtesy with which he had received them, and retired."

Regarding this incident, *The Lancet* comments, editorially, as follows:

"It is certainly a somewhat unique occurrence for a body of medical men to interview a candidate for parliamentary election, with a view to ascertaining whether he is sound on important topics in which they are interested. *Tempora mutantur, nos et mutamur in illis.* In these days, when every profession and separate interest has come to press forward its claims on the attention of Parliament, those who are too backward and modest to do so are apt to be forgotten and neglected. It may be owing to this, to some extent, that the medical profession has never received that honorable recognition and distinction from Parliament to which it is so justly entitled, from the eminent services it incessantly renders the nation, and from the learning and ability of its members. Hence, we cannot but highly commend the action of the medical practitioners of Bradford who waited on Mr. Byron Reed, one of the candidates for Parliament in that borough, and laid before him some important questions on which they wished to know his opinions before the polling day. The action of the deputation was all the more praiseworthy, seeing that, following the high traditions of our profession, they sought rather to gain benefits for the public than merely to forward their own particular interests. It is true they uttered a protest against legislation which has recently singled them out from the rest of the population, and placed them under penal obligation to render services to the public for which, in some instances, they receive no remuneration. Medical practitioners are not State officials. If the State wishes to reap the fruits of medical science, it must requite the services rendered. The most obvious way of doing this would be by assisting the profession in the acquisition of that knowledge which the State is now coming to see is indispensable to the well-being of the public and by protecting medical men in the practice of their profession. The subjects which Dr. Hime, as the chief spokesman, referred to, are of importance, and the deputation deserves credit for having drawn public attention to them."

Have we no measures of public importance to urge before our candidates, asking for our suffrage in the United States this year? Should not the medical profession of this country take a deeper interest in public affairs?

BARBARIC BRAZIL.—Two dreadful stories are told in the last number of *Fair Play*—a journal which has throughout interested itself in this subject—as to the treatment of yellow fever cases in a hospital in one of the chief ports in Brazil. The story, as told by our contemporary, is as follows: An engineer engaged on board a vessel in the port, was attacked with yellow fever, and removed to the hospital. In the next bed to him was a man, also suffering from yellow fever. Two Brazilian attendants, being unable to do anything with this man, who was delirious, by mild means or by simple pressure, got him out of bed, threw him down several times, and, this strong treatment failing to produce the desired effect, kicked him violently in the side, with the result that in a quarter of an hour or twenty minutes he died. To make matters worse, the vomit and excreta of the patients were never removed more than, at the outside, once a day. Any one can judge of the state of affairs in a hospital in a hot climate where matters were allowed to proceed in this fashion, and every one must pity the unfortunate seaman, whatever his rank may be, who finds himself exposed to the tender mercies of a Brazilian hospital staff. As a pendant to the story of the hospital treatment in Brazil, is the story from Santos. In this port, as is well known, the yellow fever season has been unusually fatal. Upwards of 200 captains of all nations have died there within the last season, to say nothing of the crews. It appears to be a rule of the port, that any person attacked with yellow fever has at once to be removed to the hospital. One captain had with him his son, quite a youth, who got the yellow fever, and was removed to the hospital. On his father applying to see him after the removal, he was told that he was dead, and that the body had been taken to a kind of mortuary. To his surprise, he found the poor lad was not only conscious, but able to speak to him. He was dying rapidly, surrounded by corpses, but not dead!—*British Med. Jour.*

VASELINE AN UNDESIRABLE LUBRICATOR.—In *Memorabilien*, Novotmy has given a warning against the use of this substance to lubricate sounds and other vesical instruments. He has twice found this insoluble material serving as a nidus about which a mass of detritus had accu-

mulated or acting as the rallying point of urinary sediment. A very little of the lubricant, left behind each time that a sound is passed, would in time, in some cases, attain to the proportions of a foreign body of appreciable mass. In one of Novotmy's cases the quantity of mixed sediment and lubricant amounted to 150 grs. in weight.—*Jour. of Am. Med. Assoc.*

BROMOFORM FOR WHOOPING-COUGH.—In an article giving favorable results in the treatment of pertussis with bromoform, in the *Canadian Practitioner*, Dr. J. T. Duncan, of Toronto, summarizes as follows: The results may be thus stated:

1. Bromoform in the doses stated is a perfectly harmless remedy.
2. The attacks diminish in number and severity.
3. The first paroxysmal vomiting disappears in two or three days.
4. Nasal and other forms of hemorrhages soon disappear.
5. It acts beneficially in complications, largely by giving affected organs, *e. g.*, lungs, a chance to rest.
6. It undoubtedly shortens the duration of the attack.

Bromoform is a heavy sweetish liquid. It is best given dropped in a teaspoonful of water. Given thus, children like it; but be sure the drops are swallowed, as they sink through the water on to the spoon. It must be dispensed in small amounts, and kept from the light, as it is apt to change.

SURGERY UNDER HYPNOTIC SUGGESTION.—Since writing an account of some earlier cases[1] I have been able to demonstrate some good cases to the profession in Baltimore. Without being unduly prolix, I will allow the cases and facts to speak for themselves.

Case I.—Mrs. S., a young married woman, aged seventeen years, had miscarried about three months before she came under my care. She had been treated at the time, but gave a history of retained secundines for ten days. She was suffering so much pain, and was so sensitive to the touch, as to make any thorough examination without the use of anæsthetics impossible. I decided to try hypnotism, and after three trials developed a good subject. The experiment was so successful that I have concluded to use it in these cases whenever possible. I found in this case a generally disorganized condition of the pelvic contents, which required surgical interference, and was able to work unimpeded and assisted by the patient.

Hypnotic suggestion will enable you to have your patients place their body or limbs in any position you desire, and they will remain so until by suggestion you change their positions. In fact, you are able to do without a number of assistants. I had one patient who would, while being operated upon, assist in handling instruments, and even in sponging the wound at my suggestion, while, of course, being perfectly unconscious of the fact that he was himself the one being operated upon. The one great advantage hypnotism has over anæsthetics is the avoidance of the disagreeable after-effects, for the patient awakens as from a sound sleep. We also avoid all danger. This case of Mrs. S. was shown to a number of the leading medical men here, who made all possible tests as to her condition of complete anæsthesia. I might add also that she was suffering greatly from insomnia. For this I would will her into a sound sleep at regular hours, the sleep to last from eight to ten hours. Finally, I could from my office, some two miles from her residence, will her to sleep.

Case II.—L. R., aged seventeen years. First came under observation in Paris. He was a page in a hotel. Seeing him several times a day, I soon found that he could be easily endormed. He complained of an ingrowing toe-nail. Putting him into a state of hypnosis, I found a very ugly toe, upon which I operated with ease to myself and unconsciously to the boy.

Case III.—B. B., my office-boy aged eighteen years. He is like a piece of clay in my hands, and offers so good a demonstration of the power of hypnotism that I have shown him before the profession here. To relate my various experiments with him would not be in accord with the purpose of this paper. Some of the experiments would read like fairy tales had they not been witnessed by responsible medical men. The only therapeutical use I have made of it with him was in sea-sickness. He suffered greatly coming

[1] See Hypnotism *vs.* Morphinism, by the author. Also cases quoted in *Am. Jour. of Inebriety*, January, 1892.

out to America, and after allowing him to be sick for a day, so as to give it a fair test by the method of suggestion, I completely effaced any inclination to its return.

Case IV.—This is a very interesting case from several points of view. Joseph B., lawyer, aged forty years, a very highly educated man, who, up to a few years ago, enjoyed a large and lucrative practice. Had been a temperate man up to his thirtieth year, when he began to drink moderately. It is the same old story—practice gone, friends lost, money squandered, self-respect nil. Doctors and asylums had been tried for years with no success. Hopelessly, yet as a last resort, he was sent to me. Fortunately, he proved a good subject. By suggestion I made him so weak that to move from his bed for six weeks was an impossibility. Meanwhile I would suggest hunger, and was able to nourish him rapidly. During the periods of craving for liquor I would put him in a state of hypnosis, and tide over the period, giving him liquid nourishment, which was taken with the same gusto as would have been a cocktail. After six weeks of this treatment I would offer him liquor, suggesting the most disagreeable odors and tastes, and the glass would be thrown to the floor in disgust. Eight months have passed since he has tasted liquor; he is rapidly regaining his practice, and is now the pride of his family.

I do not state this case as a cure, as the time is too short to lay any great stress upon it; but I do not believe the patient will ever return to his old habits again, especially if I retain my present power and can see him frequently. A prominent factor in this case is that there is no family history of alcoholism.

I have found hypnotism useful in allowing painless parturition, also in nymphomania.

As I said at the commencement of this paper, I did not intend to give any more than plain facts. The therapeutical effects, theories, discussions, and the direct bearing that hypnotism has upon our profession from a medico-legal standpoint, I leave to those better qualified than myself to speak, admonishing them, however, to remember the question Socrates put to Theætetus:

"Are we, then, still pregnant and in labor, my friend, with reference to science, or have we brought forth everything?"

—Howard, *N. Y. Med. Jour.*

THE WILD BILBERRY IN RENAL DISORDERS.—Professor Winternitz, of Vienna, directs attention to the wild bilberry, with a preparation of which he has successfully treated several renal cases. Weil, of Berlin, adds new testimony to the record of value attributed to this drug by Professor Winternitz, in assuring the profession that it has acted most beneficially in curing a case of diabetes mellitus. He used a preparation of the leaves of the plant pulled before the berries are ripe. Two handfuls of the leaves are infused in 2 liters of water, and boiled down to half.

—*Medical Press and Circular.*

DEBIT AND CREDIT IN THE ECONOMY OF THE NERVOUS SYSTEM.[1]—The nervous system is not independent of the remainder of the body, especially with regard to its nutrition; but it possesses, nevertheless, a certain self-existence by which it is enabled to maintain itself above many pathologic disturbances of the remainder of the body.

The nervous system, too, is governed by an economic rule. Everybody is originally endowed with a certain amount of nervous forces, as it were a capital which he has inherited from his ancestors and parents, and with this capital he has to go on through life. He may augment and increase it, but he may also reduce and even exhaust it. He who spends more of his nervous forces than what he receives, is on the inclined plane which leads to exhaustion, and he who exhausts his nervous forces in a permanent manner is bankrupt, although he might be a millionaire, and there are many of such nervous bankrupts jogging along through the streets of our large cities. There are many silent disorders which a layman scarcely notices, for which a layman has no understanding, and yet fully apt to render a person profoundly unhappy.

Our nervous system consists of the brain and the spinal cord; the nerves are its emissaries; they are the conduits which connect our peripheric organs with the central part. The best representation of nervous forces is formed by regarding them in the light of some tonic power. It resembles, *e. g.*, the penned-up vapor of a steam-engine. After a man has enjoyed a good sleep, there is another ten-

[1] From a lecture delivered by Prof. Dr. Grashey, Munich.

sion in his nervous system than at the time he went weary to bed. This fact of a tension being lost by work, and being able to be regained by sleep, is of paramount importance; and I proclaim sleep, without hesitation, the most important source of revenue in the economy of the nervous system. Unfortunately, many persons—and, in the first line, youth—view sleep as a necessary evil, as some importune fellow who, the more he is neglected, the more he knocks at the door. But the simple fact that sleep always returns, and even possesses the faculty of breaking the strongest will-power, is significant enough. It would be very unfortunate if sleep, like some prudish damsel, would, after the first offense, abandon us forever.

Man, in his hunt for gain and enjoyment, has learned how to chase away sleep by artificial means. He avails himself of all possible tricks for the purpose of "prolonging" the hours of work and of pleasure. He takes coffee, tea or nicotine, and woe to him who proceeds carelessly, for exhaustion is the infallible end. It is true, in this stage, he is not lost without remedy, provided he has the courage of confessing that he is bankrupt; provided he has the courage of going into liquidation and of limiting his expenses to a minimum, in this case he may still be saved. But men generally lack this courage. They recur to another system—they contract debts. They borrow force, in all appearance; by this they quiet their conscience, only to render the catastrophe even worse. They take to artificial soporifics—morphine, chloral, uretan, etc. Sleep, induced by these substances, is not normal, has not the power of refunding the expenses which we have had, and I would caution everybody against applying them.

Fortunately, sleep is not the only means of augmenting the nervous forces. There is an intermediate stage between work and sleep. It is recreation. The division of labor which in our days is necessary in all business pursuits as well as in science, which more or less transforms every one into a specialist, has for consequence that not all organs of the body, not all nerves, are equally fatigued. Thus it is not necessary to rush right away from work to sleep. On the contrary, it is even better, after having worked intellectually, to allow an intermediate pause to intervene. The advantage of a gradual transition from work to sleep has been known long ago. Cicero says, in his speech for the defense of poet Archias, that poets deserved the highest appreciation, because in their poems resided the power of gently carrying the overworked spirit to its rest. We, too, should avail ourselves of this same remedy. Recreation should be considered from a higher standpoint than usually. Many one who takes his vacation for a fortnight or a month, fails to obtain the expected restoration. Why? Because the transition from activity to rest was too rapid. We all know how things are being managed. This and that has to be settled and finished, then we start and abandon ourselves to complete repose. But too soon the last vacation day arrives, we step in again and a mountain of work is waiting for us. I think this modern vacation system is insufficient. I am of opinion that the old recreation method is preferable, and that we should not sacrifice entirely the old recreation method to our new one. The Bible says: "Thou shalt work for six days and rest on the seventh day." It means the Sunday rest, returning every seven days. The little debts, accrued during the week, are paid off with much more ease at the end of it, than by waiting for a whole year. Nor will a three or four weeks' vacation equal the fifty-two days of rest. The latter rest, in its sporadic distribution, is much more profitable. We don't get off the track, and this is incontestably a great advantage. So, while preserving the modern vacation, let us stick to the old and well-tried method of Sunday rest.

There is a third source of increasing the capital which we possess. This source is exercise. Exercise is a marvelous institution in our organism. With each repetition a work becomes easier and we attain finally a working possibility which we had never thought of. Work invigorates not only the muscles, but also the motary nerves and the higher nerves. Intellectual activity is capable of a high increase; yet exercise will be of benefit only by observing certain laws. The ancients knew that we should not proceed too rapidly in this respect. *Null dies sine linea* and *Nunquamotiosus*, means: "You should progress every day a small amount." This constitutes a significant hint. Any one who wishes to advance,

should, at the same time, pay attention to the curious sensation which nature has given us as a signal, and which we should never pass—the sensation of fatigue. Fatigue appears later and later in consequence of exercise, and we are gradually enabled to perform work which a beginner is compelled to abandon after a short time. Exercise is the real foundation of man's educability, and this faculty should be taken into account before everything in the education of our youth. In this connection I would call special attention to one point which is always lost sight of. Exercise should be applied less to the acquisition of knowledge than to certain functional capabilities.

We may exercise our memory and acquire knowledge. But this is entirely different from the notion that education and culture consist in filling mechanically a young brain with a certain sum of knowledge. Human knowledge is assisted by dictionaries and cyclopedias. But there are no dictionaries of capabilities. Whatsoever is acquired by exercise remains a property of our mental power. For this reason our intermediate schools are rightly called "gymnasia," *i.e.*, places of exercise. According to my view, from the standpoint of a neurologist, their task is not to cram people with knowledge, but rather to exercise their intellectual forces by applying them to the various subjects. When we see some one make use of some gymnastic contrivance for the purpose of increasing his strength, we should not say: He will never need it! The same holds good of intellectual education. In practical life, we seldom need our Latin and Greek, but what remains is a certain power of reasoning, analytical and synthetical. This consideration should not be lost sight of in education. But, under all circumstances, the sensation of fatigue should be taken into account, and a young man who feels fatigued, should be allowed a recreation. Beware of advancing too rapidly, of overbending the bow! Let us follow the fundamental principle of training. It is impossible for us to exceed certain limits traced by nature. As soon as we pass them, we resemble a machinist who would try with 75 or more atmospheres, a machine constructed for 10 atmospheres. An explosion may be the result. It is the same with the nervous system. The nerves may be suddenly struck with total exhaustion by overbending the bow.

How is it that just in our times so many nervous diseases are being observed? Our ancestors kept awake for whole nights like we, and subjected themselves to great exertions; but they knew nothing of this long procession of nervous disorders. Has man changed? Has he become more inconsiderate? On the contrary! Many have to suffer this exhaustion of their nervous system without their own fault, by the force of environments. It is the peculiar character of our epoch which induces it; the immense increase of population, the agglomeration of so many thousands in our large cities, the excessive traffic absolutely necessary to provide these human masses with the possibilities of life. The whole modern mode of living is accompanied by a constant expense of nervous force. Our relations with other men have at least been decupled in the last fifty years; every single individual is considerably more drawn into contact than in former times. These circumstances, which we are unable to change, are the chief origin of the nervous disorders which afflict us nowadays.

Is there absolutely no remedy? There is a remedy. We could not, and we should not, subject traffic and our exterior life to arbitrary limitations, but we should follow the indications of the times—*e.g.*, by rendering traffic more pleasant and easier, establish noiseless means of communication, do away with irritating emanations of vapor and smoke, and the like. Our optic nerves being protected by the iris against an excessive intensity of light, we should turn our attention to the serious dangers threatening our eye from a lack of light. Our modern intellectual occupations are not supported by a sufficient quantity of light, and for this reason all efforts tending to an increase of illumination, as, *e.g.*, the introduction of electric light, should be favorably received. And let us erect palatial buildings for our school children!—*Internat. Pharmaceut. General-Anzeiger.—Pacific Record of Med. and Surg.*

AN ELECTRICAL NOVELTY. NATURAL ELECTRICITY AND PHYSIOLOGY.—Let a man be placed on an electrically insulating glass stand in a dry atmosphere, and let him begin exercising with a pair of

dumb bells; let the soles of his feet be electrically connected with earth by a copper wire having fixed on it a galvanometer; it will be found that as he exercises, the galvanometer will be strongly deflected, showing that a current of electricity is passing from the man's feet soles to the earth. This has been practically demonstrated, and it so exactly coincides with my estimate of electricity, as it exists in and affects the animal system, that the following practical deductions can hardly fail to greatly impress, if not satisfy, even the most skeptical. As theory, however, is ever less satisfactory than practice, I appeal to the latter to establish the real value of what I am sanguine enough to consider a valuable discovery. My discovery is, that civilized man is seriously damaged in health by wearing on his feet a covering in the shape of prepared leather, which more or less insulates his body from the earth. It is for this reason, principally, that he is so notoriously inferior to savages, or to people living in a semi-barbarous state, or to the lower animals, in powers of recuperation under bodily injury, as well as in suffering from many diseases to which these others are total strangers.

Now, to an electrical engineer (to whom, unfortunately, all electrical questions are at present referred) the current detected as passing between the man and the earth, is so mean a thing, dynamically, as to be entirely beneath his notice; and, as to insulation, he immediately assures me that he can force through my shoe soles enough current electricity to kill me on the spot! Granted. But I am not speaking of what may be forced; I am speaking of Nature's quiet regulation of electric potentials in the human body—natural or static electricity. It is not an inapt comparison to speak of these two electrical conditions as analogous to that of water, in the two states of steam and nature's evaporation. These are both the vapor of water, but, dynamically considered, of what account is nature's evaporation to the engineer? He touches his safety-valve and cries: "There's potential for you!" He can not measure, nor has he ever considered any force whatever of so low potential as that of nature's evaporation. Yet how stupendous are the results of this low form of force in its place—Nature! In the same light, although electrical engineers look with scorn upon the (to them) weak or undistinguishable currents that pass between the bodies of animals and the earth, yet that lower form of electrical potential, like the milder form of evaporation, is of vital importance in its own place—*viz.*, animal life.

Dr. Waller, of the London Hospital, after devoting four years of close observation to this question of electrical therapeutics, using the great facilities in his hands for the most careful experimental research, writes as follows:

"One of the most fundamental and certain facts in physiology is, that the active state of a living tissue is marked by a fall of electrical level; in other words, an electrical depression is the best, most certain, and most delicate physical sign of physiological action."

By way of illustration, from matters of common knowledge, it is not difficult to find facts which are striking, if not convincing enough for any one. Take the rich, and the very poor or half barbarous living families in the country, or country towns. Look at their children. The lady from the hall, visiting the mud hovels on her estate, is ever confessing that she almost dies of envy of poor Mrs. Buggins, to see the round, rosy cheeks, sturdy limbs, and bright liquid eyes of her barefooted little brats, while sighingly contemplatingly her own pale, puny, and sickly darlings. "And yet," says the lady, "I feed them on as simple food as you do yours, Mrs. Buggins, and they continually play in the same open air as your little ones thrive in. What is it, or why is it there should be this difference?" Such has been the question of all time. The little, bare, red feet of the common child have always escaped notice as anything more than causing an appeal to the hearts of the rich, making them send the poor mother a supply of left-off shoes and stockings for her shoeless urchins; which, however, said urchins decline to wear; "they make their feet hot and tired," etc., and off they go on their own leather again; and they continue to grow healthy and strong as young oxen, while on the same soil and in the same air their rich neighbors do the reverse. Negroes and coolie laborers, who never by any chance wear shoes, are remarkable for their freedom from diseases to which the civilized are subject. They have no toothache—their teeth, indeed, are proverbial for whiteness and health, without any toilet attention

whatever. They are never bald, and their sight is remarkably clear and good, even in advanced age. The eyes of such people have that liquid clearness that one sees so seldom among ourselves; it is the characteristic eye of most wild animals.

To attribute this superiority to a different style of food, etc., is simply absurd, for individuals from among such people who have been employed in some capacity where they have to wear shoes—other conditions remaining the same as before—very soon show the usual symptoms denoting a departure from nature's law—*i.e.*, they become bald, weak-eyed, and have decayed teeth, etc., such as they never before knew. In this I speak from personal observation during two years' life right among such people in the West Indies.

Again, in Scotland, in the grounds of large mansions, where immense lawns are kept closely mown by horse power, I observed that the men never used the same horse two days in succession. The reason of this I found to be, that as the horses in this work are always shod with great leather or rubber overall shoes or slippers, to prevent their cutting or defacing the sward, they cannot be so employed day after day without serious damage to their general condition, but especially to their eyes. A week or two continuous work at this invariably injures horses' eyes, some becoming in that time totally blind. I pass over cases where continued damp or wet shoes and stockings have led, through colds and coughs, to phthisis, and where injury to the foot sole affects the jaws, wherein our teeth undoubtedly vegetate, like plants in the ground—thus indicating the possibility that dental caries proceeds from a continual interference with Nature's electrical provisions in our feet.

I ask any man, before he decides this question for himself, to consider for a moment the wonderful construction of his own feet soles. Why are they provided by the Creator with that marvelous cluster of cutaneous nerve endings which so distinguishes them from any other part of his body? Why have we here those myriads of little nerve feelers brought right out in the papillæ of the skin, so that if free to do so, they would have actual contact with the earth as we walk on it? Was that provision made in vain? We must acknowledge that, if so, it is certainly the first of Nature's provisions which can be called so. Now, the latest advances of science on every side concede the fact that the nervous system is, to all intents and purposes, the electrical system. I, therefore, contend that our feet soles were designed to act as an electrical highway between our bodies and mother earth, and that the maintaining that highway in a free and unimpeded state is a matter of vital importance, not only to man himself, but to all other animals on earth.

It is so easy to multiply proofs of the absolute truth and importance of these facts, by practically relieving, as I have so often done, sufferers from various forms of sore feet—these being undoubtedly the first outward signs of Nature's protest against our violation of her laws—that volumes might be filled with their narration. Instead, thereof, let us endeavor to suggest a remedy. To this end I provide our ordinary shoes with an in-sole of good conducting material, with very fine wires invisibly fixed, so as to afford perfect electrical communication between this in-sole and the earth; so that a man in his ordinary footwear is caused, in an electrical sense, to literally walk barefooted on the ground, as he ought to do. The effect of this most simple attachment to shoes, as an immediate relief from cold feet in winter and from painful and swollen feet and ankles in summer, often amounts, to almost a miracle. I have myself purposely worn rubber-soled shoes until my eyes became sore as if filled with sand, and the pain in my feet soles was unbearable. I have then had attached the metallic earth connection as described, and at once all was changed; the shoes immediately became easy, not hurting my feet at all, and in a short time my eyes were again perfectly well.

In conclusion, I would put the question to the profession and laymen alike—for any man of intelligence is capable of fairly judging such a matter for himself—Is not my simple and rational plan, *viz.*, to give heed to and obey Nature's plain demands as to our feet soles, worth a fair trial?

Men of such universal and deserved fame on the subject of the nerves as Dr. Weir Mitchell, of Philadelphia, and Dr. Brown-Séquard, of Paris, have written as follows. The former says: "I have very little doubt that in some instances of local nervous disease the starting-point lies in the dermal nerve papillæ." Dr. Brown-

Séquard says: "The same peripheric cause of irritation, acting on the same centripetal nerve, may produce the greatest variety of effects, including every functional nervous affection or disorder." For the benefit of any reader unfamiliar with medical technicalities, we may be allowed to offer a free translation of these opinions. Both these experienced physicians here say that any nerve irritation —*i.e.*, any artificial or unnatural interference with ordinary nervous action or circulation in the outer skin or surface of some part of our bodies—is quite capable of producing serious disorders in any other, either external or internal, part, be it near to or far distant from that outer portion so acted on. Wherefore, that interference already described, with the natural nerve circulation between our feet soles and the earth—those soles being the most highly organized nerve surface of any in our bodies—may (and I contend does) produce in one person blindness, in another deafness, in another baldness, or cancer, or consumption of the lungs, heart failure, decayed teeth, rheumatism, neuralgia, or, indeed, any other unnatural or diseased state, in any other part or parts of our whole system, the organ affected differing in different subjects, simply because some are weak in one place, some in another, the particular location being determined entirely by the idiosyncrasies of constitution, the disease taking hold in each subject at his weakest point.

From well-understood physiological causes, the eyes are, perhaps, in all cases the first organs plainly damaged by insulation of the feet; but though they are more directly, they are no more surely, injured by it then other organs are in time.

As a ready test, and as a negative way of proving the benefit of earth connection, let any one interested try the following experiment: Paper is a good insulator. Take, say, three or four thicknesses of any common dry paper, say, newspaper, cut in-soles of it, and wear them daily in your shoes, taking care to renew them of fresh, dry paper daily. After four days, how does he feel? His feet soles are very painful, his eyes inflamed and sore, much as if dust had got under the lids, and altogether he is uncomfortable and feeling out of order. Now, this clearly shows that insulation is injurious, and this experiment is only assisting our shoes a little in that partial but destructive insulation which they inflict upon us every day we wear them. Though our teeth are more slowly affected, like other organs already alluded to, yet my experience goes directly to prove that electrical earth connection of the feet benefits the teeth as truly as it does the eyes. For in my own case, whereas formerly I was every now and again a great sufferer from toothache, since January, 1888, when I first adopted this plan, I have never had an ache or pain in my teeth, and they have neither required nor had any other treatment to acccount for this great change. I can say quite as much of my lungs. Formerly I was hardly ever clear a month at a stretch of a most annoying cough and wheezing, just as if I had been well started with asthma. Since the date named I have been entirely free from coughs or wheezing, and, indeed, from any bodily ailment.

While so much remains of uncertainty as to cause and effect in the nervous system, with an ever-increasing spread of nerve troubles among mankind, and while all will subscribe to the aphorism, that "prevention is better than cure," it is hardly too much to hope that anything novel on the latter lines, which may fairly claim an appeal to reason or common sense, should be welcomed and receive the fairest trial. That trial—a practical test of the benefit to the human system of electrical earth connection—is all that is necessary or desired.

—Quarrie, *N. Y. Med. Jour.*

THE PREVENTION OF MURAL ABSCESSES, SINUSES, AND VENTRAL HERNIÆ AFTER LAPAROTOMY.—*Mural Abscesses.*—Abscesses in the line of the abdominal incision, as we all know, are not necessarily dangerous, but they are attended with fever and pain on the part of the patient, and are a source of great anxiety to the young surgeon. And they help to make the track for a later ventral hernia, as is well known to the more experienced surgeon.

Can they be avoided? To answer this question we must remember that an abscess, in the vast majority of cases, is due to a disturbance of the blood and nerve supply, either directly or indirectly, or to a deposit of sepsis in the wound. The disturbance of blood and nerve supply as a cause of abscess, may require a word of explanation. A wound that is lacerated does not heal as quickly and as kindly as

a smooth-cut wound. The lips of the wound that are pulled apart by the fingers, and pressed hard upon with retractors, are injured much deeper. The blood-vessels and nerves are possibly wounded for a full half inch beneath the edge of the tissues. Consequently the vitality is low, and there is a disposition to form abscesses from direct death of a part of the wound; and in many cases this part of the wound is badly strangulated by deep sutures, which have been tied unnecessarily tight.

It is not safe or good surgery to tear up the tissue with the finger, separating the layers of the abdominal wall, making large or small pockets for the deposit of sepsis or blood-clots. Other things being equal, make a clean cut wound through the abdominal wall, and retract the edges of the wound with a proper, safe retractor, using care in this also; never hold the retractor too firmly, as I have often seen done, for ten or fifteen minutes, without once loosening the instrument, to allow a return of circulation in the lips of the wound.

Make a larger wound at first, rather than do any injury by too great pressure.

Sometimes, undoubtedly, the lips of the wound are severely injured by too much sponging with too hot water, or by using too strong germicide fluid. Avoid both sources of injury. Sometimes, too, the lips of the wound are seriously injured by the hand, in the vain effort to pass it into the abdomen through a too small incision, and later in an effort to deliver the tumor through this small opening. Because Mr. Tait has taught us to work through a small incision when we can, we must not suppose that he does not believe in a large incision, when necessary. We have often erred in applying his rule for special cases to all of our cases.

Make the incision large enough to enable you to work intelligently and without difficulty in the pelvis, and without injury to the lips of the wound while the hand is in the pelvis.

The question of sepsis at the time of the operation is one, however, not to be overlooked. Undoubtedly, many an abscess is caused by the direct deposit of sepsis in the edge of the wound.

Make sure that the hands, instruments, sponges, towels, and all outer garments which can possibly be touched during the operation, are absolutely aseptic.

The patient should be made clean, the pubis shaved, and a moist bichloride dressing should be kept over the abdomen for twelve hours before the operation. This last suggestion is too often overlooked. I believe it to be important. No iodoform or aristol collodion dressing is needed to cover the wound when a sterilized cotton dressing is used. Another source of sepsis is the dressing, which is often allowed to remain too long over the wound before it is changed. We have not yet found a perfect dressing—one which we can safely trust on a wound of the abdomen for six days without removal. Even a biniodide of mercury dressing, which we all had hoped would be perfect in this respect, is far from an ideal dressing. We have often removed it after three days, and found underneath an abundant crop of pustules, some quite deep and large. I know of no germicide dressing which it is safe to keep *in situ* over the wound for six or eight days without inspection. We must not practise and teach that a dressing can remain for six days without changing. It is far better, if we wish to avoid mural abscesses, to remove the dressing, of whatever sterilized material is used, on the third day, and wash the wound with a warm germicide fluid, and apply another sterilized dressing, doing this every second day, until the time to cut some of the sutures has arrived. And, furthermore, we should apply a moist bichloride dressing to the wound for full two hours before cutting the sutures. In other words, under no circumstances introduce sepsis as you withdraw a suture which is not absolutely aseptic. Sutures must be made aseptic before cutting and removing. Our abscesses which appear after the eighth day have almost always been caused by this carelessness.

The selection of needles and suture material, and the manner of introducing the needle, may also, undoubtedly, be a cause of abscess.

Use a needle which will pass easily through the abdominal wall. I do not think, in abdominal surgery, that the shape of the wound which the needle makes is of great advantage. The rules to follow are to have a sharp needle in all cases, a long and strong needle in thick-walled cases, and not a large needle in

any case. A few Keith or Skene fine trocar-pointed needles, each carrying a sterilized suture of silk, or silkworm gut, will be the ideal needle to use in passing sutures through the abdominal wall, when the edges can be easily raised and everted. But if the wall is tense and the wound small, a stronger, slightly curved Hanks-Peaslee needle will serve best, or a slightly-curved Hagedorn needle may be used. I have found silkworm-gut easy to use with this handled needle, and my assistant threads the needle instantly after its passage through the wall on his side. Silkworm-gut or silver is best for holding the different layers together. I have found the sharp two-inch, round-pointed, slightly-curved needle best for the peritoneum. For the fascia a sharper, stronger needle should be selected. I make these suggestions because I believe that unnecessary punctures are often made with poor needles—needles not adapted to the work in hand—and I believe every puncture, especially with a large needle, is an additional source of irritation. Too many surgeons are not good mechanics, and they expect to do all the work in the different abdominal wounds with needles of the same length and size. In very stout patients, when the adipose tissue is two and a half inches or more in thickness, it may be well to close only the peritoneum, muscle, and fascia, and leave the adipose tissue and integument to heal slowly by granulation, as recommended by Dr. Pryor.[1] By this way Dr. Pryor seeks to avoid the mural abscesses which are so liable to occur in every stout woman. I have never tried this plan primarily, but I have always practised a similar procedure in closing the sinuses caused by drainage-tubes and mural abscesses. I believe it a wise suggestion to follow in stout women, and shall certainly follow it in the future.

To recapitulate: In trying to avoid mural abscess—

1. Make a clean-cut wound, and not a lacerated wound;

2. Do not separate the different layers unnecessarily;

3. Do not retract the lips with too much force or for too long a period;

4. Do not use too hot water, nor too strong germicide on lips of wound;

5. Have the abdomen aseptic by keeping a germicide dressing on abdomen for twelve hours before operating;

6. Do an aseptic operation;

7. Make no unnecessary punctures with needles;

8. Do not strangulate wound with too tight sutures;

9. Under proper aseptic precautions, remove the sterilized dressing every two days, wash with warm germicide fluid, and redress as before;

10. Before cutting sutures, have the patient wear a moist bichloride dressing for two or more hours. Be sure no sepsis is on any suture before removing it.

Sinuses in Track of Drainage Tubes.—These accidents, like mural abscesses, are not dangerous, but they trouble our patients longer and humiliate the surgeon beyond expression. I believe they can be avoided.

1. Never use a drainage tube when not needed.

2. Never allow one to remain *in situ* for over twenty hours without drawing it upward a third or half an inch, and fastening it in its new position.

3. Entirely remove it on the third day, unless purulent matter is withdrawn on that day, or the case is one of tubercular peritonitis. A little serum will do no harm if it is allowed to remain in the cavity.

4. Insist upon much more care being exercised by the house surgeon or nurse in clearing the tubes. They must be kept sweet and aseptic.

5. Always have one loose suture untied in the track of the tube, which is to be tied as soon as the tube is removed and the parts thoroughly cleansed.

Ventral Hernia.—This accident is far more frequent than many suppose. They do not all occur alone in the practice of the inexperienced operators. Some of our most brilliant operators find that there is a large per cent. of patients with ventral hernia if they examine them after two years. I have been called to operate for this distressing accident five times in three months during the last year. These patients had been operated upon by four different gynæcologists. One patient only had been operated upon by myself. If I

[1] *Medical Record*, September 19, 1891.

have seen five cases in three months, what must be the number seen by all the other gynæcologists in New York City alone during the year. During the last few years in the Cripples' Hospital in New York, fifty patients, from among the poor, have applied for suitable trusses or supports for ventral hernia following laparotomy. The cause of ventral hernia is, of course, the giving way of the muscle and fascia in the line of the wound. I believe we can prevent the accident.

I know, and many of you know, how very infrequently the peritoneum, the muscle, and the fascia are brought into exact apposition during an operation. I have seen this done so slovenly that nothing short of a miracle could prevent a hernia. Many and many a time, when a deep wound is being closed, the peritoneum on one side is allowed to slip up between the fascia, thus paving the way for an early rupture. To avoid this accident, and for other reasons, Ségond favors vaginal hysterectomy, as in that case there is no abdominal cicatrix.[1]

Pozzi[2] and a host of others advocate suturing the wound in layers to reduce the possibility of hernia in the abdominal cicatrix to its minimum proportions. The drainage tube is far less likely to be the cause of the hernia. When a large one is used, possibly it may be an exciting cause, but generally it is surrounded by plastic material, and no portion of the intestine can get in position to work through the artificial canal. The cause, therefore, is due to the inexact way in which the different layers are brought together, or to the weakness which has resulted from an abscess in the wound at the point of union of the fascia. The rule to be adopted and followed in all cases is to bring the peritoneum together with very fine continuous catgut sutures, then the muscle and fascia in like manner, making sure of the muscle as well as the fascia. No wound is safe unless the fascia is strong. Whatever plan you may adopt for the adipose tissue and integument, the peritoneum, and especially the muscle and fascia, must be treated as above described if the danger of hernia is to be reduced to a minimum. A good course to pursue is to keep the different layers together by inserting two deep sutures of silkworm-gut first, and allowing them to remain loose until the fine catgut, suturing in the peritoneum and fascia are each, in turn, completed; then by gently tightening these deeper sutures, bring the different layers in apposition. Do not draw these deeper sutures too tightly, or there will be strangulation of the deeper tissues. If you are sure of your catgut you can do all the work with it. Certainly not more than two deeper silver or silk or silkworm-gut sutures are needed. I do not insist upon any one plan for closing the wound. I only insist upon bringing each layer in exact apposition with its fellow in regular order in the most exact and improved manner. The annoyance and distress of some of these women suffering from a monstrous hernia cannot be exaggerated. We ought to be willing to give five minutes extra time to a scientific suturing of the abdominal wound in order, if possible, to prevent an accident so serious to the patient and so humiliating to the surgeon.—Hanks, *Med. Press.*

[1] Abstracts in *Am. Jour. Obstet.*, August, 1891, p. 1010.

[2] *Am. Jour. Obstet.*, August, 1891, p. 1014.

IMPORTANT FACTS IN THE THEORY OF INFLAMMATION.—The Bowman lecture of the Ophthalmological Society was this year delivered before a numerous audience by the distinguished Professor of Ophthalmology at Heidelberg, Theodor Leber. For many years past Professor Leber has been engaged in working out the pathology of the inflammatory process, which can nowhere be studied to greater advantage than in the cornea; and it is not surprising that he took that subject for his theme, and presented to his hearers, in a condensed form, the contents of the large and important work he published a few months ago, the chief points in which we recently translated for the benefit of our readers. After a brief but appreciative reference to Sir William Bowman, and to the loss sustained by the profession by his death, Professor Leber acknowledged at once that we are indebted to Sir Joseph Lister for the proof that the purulent inflammation following an injury is caused by inoculation of micro-organisms within the wound. Further inquiry has led to the discovery that their capability to give rise to inflammation and to disease in general depends upon the production of certain poisonous substances which, in infinitesimally small quantities, are able to cause inflammation

and necrosis of the tissues of the body; whilst, on the other hand, the presence of an inert foreign body, introduced antiseptically into the tissues, leads to no inflammation whatever. Nowhere can this be more clearly shown than in the eye. If a small piece of gold or glass be introduced through a slight wound, with due antiseptic precautions, into the anterior chamber of a rabbit's eye, no inflammation is excited, no pus is found, and this foreign body may continue visible for months, or even years, either in the aqueous or in the vitreous, which remain unclouded. From this fact it was easy to draw the conclusion that suppuration is only produced by the specific action of micro-organisms. Unfortunately, however, further experiment soon presented stubborn facts which militated against this theory; for a single drop of mercury, rendered absolutely sterile by heat, antiseptically introduced into the anterior chamber of the eye of an animal, always gives rise to a circumscribed collection of pus in its immediate neighborhood, which is distinguished from that which is produced by micro organisms by the entire absence of microbes, which can be shown by the microscope, or which can be obtained by culture experiments. But mercury is not the only substance that can induce suppuration. Metallic copper is equally potent, though Professor Leber has observed remarkable differences in the effects produced, according to the part which may happen to come into relation with the metallic fragment. Should it rest either on the iris or inner surface of the ciliary body, suppuration will certainly be produced; whilst a similar fragment produces no pus when situated in the lens, where it does not even produce complete opacity. The reason of this difference, he shows, lies in the fact that the fragment of copper, when situated in the lens, is completely enveloped by a thick coating of albumen, which effectually prevents it from exercising its irritating chemical action. On the other hand, when in contact with vascular tissues copper immediately acts upon the vessels, an effect that is probably due to the copper being dissolved by the fluids of the eye, on which fact its power of provoking inflammation depends. One of the commonest causes of suppuration—the staphylococcus aureus—readily furnishes proof that its action depends upon chemical substances, for if a pure culture be perfectly sterilized the fluid containing them can still produce an intense purulent inflammation when injected into the anterior chamber.

The study of septic inflammation of the cornea shows that the action of the micro-organism extends far beyond the area of its development, so that, as Professor Leber remarks, a sort of distant action must take place. The lecturer then proceeded to describe the keratitis caused by inoculation of micro-organisms. He took the case of a microbe developing in the center of the cornea, and showed that the effect in the area directly attacked consisted only of retrogressive changes in the cells, ending in necrosis. At first, if the action of the microbe is sufficiently intense, neither migration of the leucocytes nor proliferation of the cornea cells takes place, but after a time there appears a zone of dense infiltration of pus corpuscles—which are in reality white blood corpuscles—which affect more or less the entire thickness of the cornea. This is due to the disposition of the leucocytes to move toward the place of the greatest concentration of the exciting substance; but as they are making their way toward the microbic area, stimulated to movement by the slighter concentration of the poison, they fail to reach it, because, whilst still at a distance, their movements are paralyzed through the intensity of the toxic action, and the cells have perished. We thus find an explanation of the central necrosis in cases of septic inoculation of the clear ring which surrounds this area, and which is saturated with the poison, and of the opaque, purulent area formed by dead leucocytes.

—*The Lancet.*

FORMULÆ: *Hair Tonic.*—The writer recommends the following lotion for the scalp in such cases as thinning of the hair, where no cause is apparent, and the patient insists on having a "hair tonic:"

℞.—Fluid extract jaborandi..... f℥j.
Tincture cantharides..... f℥j.
Sulphate of quinine..... ℥j.
Glycerine..... f℥ij.
Bay rum.....q. s. ad f℥xvj.
Mix. Rub into the scalp every night.

—J. C. Falk, in *The Med. Fortnightly.*

Difficult Digestion.—A favorite prescription of the out-door medical department of the Jefferson Medical College Hospital, in cases of difficult digestion accompanied by constipation and flatulency, is the following:

℞.—Tincture nucis vomicæ,
Tincture belladonnæ,
Tincture physostigmatis..... āā f℥ij.
Extract cascaræ sagr..... f℥vj.
Extract erythroxyli fl.....q. s. ad f℥iij.
M.—Sig. A teaspoonful after each meal.

—*Ib.*

In vomiting of pregnancy Dr. Frank R. Fry has found the following formula very serviceable:

℞.—Cocain. muriat..... gr. vj.
Cerii oxalat..... gr. xxiv.
Glycerine,
Aqua laurocer.....āā ℥iij.
Aqua destil.....q. s. ℥iij.
M. ft. mist.
Sig. One tablespoonful (taken cold) every two hours, to once or twice a day, pro re nata.

—*Ib.*

In constipation due to torpor of liver and bowels the following is of great merit:

℞.—Pulv. rhei..... gr. xij.
Pulv. aloe..... gr. vj.
Extract bellad.,
Extract nucis vomicæ.....āā gr. ij.
M. ft. pil. No. xii
Sig. One after each meal.

Robinson—*The Med. Fortnightly.*

THERAPEUTIC NOTES FROM THE FRENCH.

(E. W. Bing, M.D., Chester, Pa., Translator).

Employment of Solanine in Affections of the Stomach with Neuralgia (Desnas).—Solanine is a product of the various species of the order solanaceæ. It occurs as a yellowish-white substance, insoluble in water, and depositing from a hot alcoholic solution very fine, needle-shaped crystals, showing under the microscope as rectangular prisms. It is found principally in the green sprouts and skins of the potato, although it comes in other plants of the order. It is now generally regarded as a glucoside, being split up in the economy into glucose and solanidine. Experiments on animals with solanine show that it acts on the medulla oblongata, spinal cord and nervous trunks, giving rise to analgesia of the terminal sensory nerves, to paresis in the motor nerves, and exercises, secondarily, a depressing effect on the brain.

These qualities have led to its use in various neuralgias.

The author's observations numbered nineteen; two of these cases were left out of the account, as they were malingerers of the seventeen remaining cases; he reports four failures and thirteen successes.

The failures were two cases of gastralgia, one of gastritis (chronic), one of cramp of the stomach following acute inflammation. The favorable cases comprehended a few simple gastralgias; gastralgias occurring in the course of pelvic peritonitis (with abscess discharging into the rectum); gastralgia supervening in the course of uterine congestion, following delivery, and complicated with ileo-lumbar neuralgia; neuralgic dyspepsia, due to exhaustion from prolonged nursing, and to dyspepsia with cramps from undigested food. Other cases were due to alcoholic excess, gastric ulcer, pyloric cancer, etc. The best form of administering solanine is as pills of 5 cgms. each, given one-half to one hour before meals.

—*Bulletin Gen. de Therapeutics.*

For Writing on Glass.—Dissolve 36 grammes of fluoride of sodium and 7 grammes of sulphate of potash in 500 grammes of water; also dissolve in 500 grammes of water 14 grammes of chloride of zinc, and add 65 grammes of hydrochloric acid when wanted for use. Mix equal parts of the solutions, and use with pen or brush.—*Journal des Invent.*

Lycopodium in Continence of Urine.—Introduced as a new treatment by Fenevich in 1887, it was neglected till lately, when Green (of Ireland) began to use it with good results. The theory for its use is obscure. According to Green, it anæsthetizes the mucous membrane of the bladder and tones up the sphincter. In one case, where catheterization was very painful, there was no difficulty after the use of lycopodium.

The sporules of the mass being insoluble, must be first rubbed with sugar of milk before maceration in dilute alcohol. The dose of the tincture (strength not stated) varies from three to forty drops three or four times a day.

PARACRESOTATE OF SODA—A NEW ANTISEPTIC FOR INTERNAL USE.—Paracresotic acid is a new derivative of paracresol, obtained by the combination of carbonic acid with the latter body in presence of sodium. Paracresol, or paracresylol is one of a group of cresols, or cresylols, which contains three isomers, ortho, meta and para-cresol. By the above reaction all these bodies may fix under the same conditions a proportion of CO_2 and give rise to a creosotic acid. These acids (meta, ortho, para-cresotic) are the higher homologues of salicylic acid: $C^7H^6O^3$, in which an atom of H is replaced by the group CH_3. Pancresotic acid has been obtained by Kulbe and Lauteman by passing through paracresol, gently heated, a current of CO_2, then adding fragments of sodium. There is formed along with cresolate of soda cresylcarbonate, which is decomposed by HCl into cresol and cresotic acid. This is purified by several successive manipulations. Paracresotic acid occurs as white, acicular, brilliant crystals, soluble in hot water, ether, alcohol and chloroform. Salts of iron give a violet color, as with salicylic acid.

Therapeutically, the pancresotate of soda has been employed. It is a very fine crystalline powder, of a bitter taste, but not unpleasant, soluble in 24 parts of tepid water, and remaining in solution when cool. Paracresotic acid is of the three isomers the most active and the least dangerous, the meta variety determining paralysis of the heart. According to Demmé, paracresotate of soda produces in warm-blooded animals softening of the pulse, lessened number of respiratory movements, and lowered blood pressure. It has been prescribed as an antipyretic and internal antiseptic. It has been given in rheumatism, with results resembling those of salicylic acid. It is quite useful in intestinal infection, in typhoid fever and gastro-intestinal catarrh of nurslings. Its action also resembles that of resorcin. For the diarrhœa of infants, Demmé uses:

℞.—Paracresotate of soda...	0.10 to 0.20 cgms.
Tinct. opium.....	2 to 4 gtts.
Cognac	1 grm.
Syr. gum arabic.....	5 grms.
Dist. water	25 grms.

A teaspoonful every two hours.

—*Le Progress Medicale.*

TREATMENT FOR HYPERIDROSIS, ESPECIALLY OF THE FEET (SWEATING FEET) (Brocq).— 1. *Naphthol.*— Apply twice daily a mixture of naphthol, 5 parts; glycerine, 10 parts; and alcohol, 100 parts; then powder with starch, pure or mixed with naphthol, with pads between the toes.

2.

℞.—Permanganate of potash..	1 grm.
Thymol	.30 c. grms.
Dist. water	100 grms.

Wear soles made of paper, felt or muslin, soaked in this solution and then dried. Change them every day, and powder with a preparation containing permanganate.

3. Salicylic acid, quinine, tannin, preparations of iron, may all be employed, either dry or liquid.

A MEANS OF RESUSCITATION OF THE APPARENTLY DROWNED (Labord).—This means is to be used in conjunction with the ordinary methods. It consists in seizing the tongue, and making energetic, backward and forward movements, causing powerful action and excitation of the base of the tongue, and producing reflex respiratory action. This simple expedient has succeeded even after immersion of twenty-five minutes duration, and after the usual methods had failed.

—*La France Medicale.*

ABORTIVE TREATMENT OF ERYSIPELAS OF THE FACE BY "SUBLIMATED" ETHER SPRAY (Talamon).—Talamon thinks it possible to hinder the march of erysipelas by this procedure. He has had several successes with it, and believes it an excellent abortive in the affection. He follows the subjoined plan. A solution of sublimate of ether, 1 per cent.; to use it in a hand spray apparatus of small size; to consider the duration of each application and the force of the jet; the fineness of the patient's skin; the depth of the infiltration; the existence of bullæ; to not fear vesication; to provoke it boldly by prolonging the spraying if the inflammation is of small extent; to spray the center of the spot more than the periphery, and to apply it to the forehead to prevent the inflammation spreading towards the scalp; to cover the face with boric compresses kept wet. On the body and limbs the spraying may be stronger and longer; to warn the patient that the dressing will be somewhat painful; that the face may

become swollen, and that the application may produce some scabs; to be careful not to detach the scabs, but to allow them to fall off under the dressings.

(Some practitioners, among them Guyot, have tried this plan without success).

—*La France Medicale.*

CLINICAL AND BACTERIOLOGICAL RESEARCHES ON THE MUD DEPOSITED IN THE "CHAMBERLAND" FILTER (Lacour).—In normal conditions the filter furnishes sterilized water if certain precautions are observed. The water pressure is of importance. Under a pressure of forty-five pounds the germs commence to pass through by the third day, and by the fifth day a pressure of thirty pounds (two atmospheres) is sufficient. At fifteen pounds pressure the water is sterile; the author has proved the above facts by experiment, and in his opinion, to avoid danger, the pressure should not go above fifteen pounds, and the bougies (filter tubes) should be thoroughly cleaned every two or three days, especially so if a greater pressure is used.

—*Revue Gen. de Medicine Chirurg.*

AT the meeting of the Nantes Medical Society of May 30, Dr. Desormeaux reported a case of congenital imperforation of the uterus in a patient of seventeen years, who had never menstruated, and had suffered greatly each month since the age of fourteen. She had epistaxis every two or three months with great relief. At sixteen she had pelvic peritonitis.

Vulva and vagina normal; uterine neck thick and long; body easily felt above pubes.

Not knowing whether or not there might be commencing pregnancy, Desormeaux at first used warm irrigations and baths, but the following month he discarded the idea of pregnancy and made a local bleeding which gave relief. Catheterism of the cavity was practised, the instrument was arrested at the depth of 4 cm., not penetrating beyond the neck, the obstacle was not caused by a bending, the direction was normal. He resolved to make an incision, and did so antiseptically. He cut through a hard resisting tissue, which was 5 to 6 mm. thick; the operation was finished by dilating. The uterine cavity, enlarged towards the fundus, measured 10 cm. After a few days another dilatation was made, and since then the girl has been regular.

—*Gaz. Med. de Nantes.*

News and Miscellany.

DR. C. C. TERRY, of Fall River, died in that city on July 18, from a wound received in fencing. The button on his adversary's foil broke, and the weapon pierced his eye and entered the brain. He almost immediately lost consciousness, and died in about three hours. Dr. Terry was a graduate of the Harvard Medical School, and was fifty five years of age.

—*Med. Record.*

THE editor of a southwestern religious paper recently received the following letter:

"DEAR SIR:—When my subscription expires, I desire to stop taking your paper. The only practical article it has had for the last six months is a recipe for getting rid of red ants, and on making a trial of it, I find that it is no good. A paper that gives bad advice about red ants may be just as far off the track in its theology, and it ain't worth a blame to me."

—The Radford, Va., *Enterprise.*

If the reader was thus disappointed in the "ant" recipe, how would he feel when he had tackled some of the patent medicines so freely boomed by the religious frauds?

THE COMPOSITION OF DR. BROWN-SÉQUARD'S GLAND JUICE.—At the last meeting of the Académie des Science, M. Gautier announced that Professor de Poehl, of St. Petersburg, had succeeded in extracting from the pancreas, thyroid body, ovaries and testes, a leucomaine called spermine, having the composition represented by the formula $C_5H_{14}N_2$, which he has isolated in the form of crystallized phosphate. A few centigrammes of this base, introduced subcutaneously in the form of hydrochlorate, is said to produce the tonic and exciting effects of Dr. Brown-Séquard's injections, and the discoverer believes that it is to spermine alone that the remarkable results obtained by these injections are due. It appears that spermine possesses great oxidizing power, it being capable of rapidly converting, in the presence of gold or platinum chloride, magnesium into magnesia. Under its influence also, the nitrogenous extractives of urine are converted into urea. It is pointed out that in Germany spermine is confounded with piperazine, the latter substance being sold for the former.

—Paris correspondent of *The Lancet.*

AN ELECTRICAL FINGER.—It is said that an electrical finger for surgical uses has recently been invented. A bulb, attached to a long probe, is attached to a finger stall. The bulb is double and the outer skin is flexible. The two layers are connected with opposite poles of the battery, and wires connect the inner layer with the finger tip. Pressure at any point closes the circuit, and the electrical current is transmitted to a corresponding point on the finger. The surgeon has thus a means of feeling and measuring things which he can neither see nor reach by ordinary means.

WEEKLY Report of Interments in Philadelphia, from July 16 to July 23, 1892:

CAUSES OF DEATH.	Adults.	Minors.	CAUSES OF DEATH.	Adults.	Minors.
Abscess of rectum	1		Fever, scarlet		3
" lung	1		" typhoid	4	
" brain	1		Gangrene of foot	1	
Abscess, ovarian	1		Hemorrhage	2	2
Aneurism of the aorta	1		Inanition	1	20
Alcoholism	4		Inflam'n bladder	2	
Apoplexy	8		" brain	3	7
Anæmia		1	" bronchi	5	3
Bright's disease	6	2	" kidneys	9	
Burns and scalds	1	1	" heart	1	
Cancer	14		" mouth		2
Casualties	9	2	" lungs	6	10
Congestion of the brain		7	" peritone'm	4	1
Congestion of the lungs	1	1	" s. & bowels	8	21
Cholera infantum		124	" tonsils	1	
" morbus	6	1	Influenza	1	
Cirrhosis of the liver	2		Intussusception	1	
Consumption of the lungs	34	6	Locomotor ataxia	1	
Convulsions		18	Jaundice		1
" puerperal	1		Marasmus	1	38
Cyanosis		3	Measles		2
Debility	2	3	Obstruction of the bowels	4	
Diabetes	1		Old age	9	
Diarrhœa	6	3	Paralysis	5	
Diphtheria		19	Psoriasis		1
Disease of the spine		1	Pyæmia		1
" " heart	9	3	Rheumatism	1	
" " uterus	1		Shock, surgical	2	
Drowned	3	1	Sclerosis	1	
Dropsy	4		Septicæmia	3	
Dysentery	11	1	Suffocation	1	
Effusion of the brain		1	Suicide	4	
Epilepsy	1		Sunstroke	1	
Erysipelas		1	Syphilis	1	
Embolism of femoral artery	1		Tabes mesenterica		2
Extra uterine pregnancy	1		Teething		5
Fatty degeneration of the heart	2		Tetanus	1	
Fatty degeneration of the kidneys	1		Tumor	2	
Fracture of the femur	1		Ulceration of the bowels	1	
			Ulceration of the stomach	1	
			Whooping-cough		4
			Total	224	322

OF THE FOREGOING THERE WERE:

Under 1 year	232	From 40 to 50	34
From 1 to 2	38	" 50 to 60	32
" 2 to 5	20	" 60 to 70	36
" 5 to 10	15	" 70 to 80	34
" 10 to 15	10	" 80 to 90	13
" 15 to 20	7	" 100 to 110	3
" 20 to 30	39	Total	546
" 30 to 40	33		

WARDS.		WARDS.		WARDS.	
First	33	Thirteenth	10	Twenty fifth	25
Second	12	Fourteenth	8	Twenty sixth	35
Third	12	Fifteenth	26	*Twenty se'h	44
Fourth	9	Sixteenth	16	†Twenty ei'th	28
Fifth	10	Seventeenth	11	Twenty ninth	25
Sixth	4	Eighteenth	10	Thirtieth	14
Seventh	20	Nineteenth	33	Thirty-first	21
Eighth	8	Twentieth	16	Thirty second	9
Ninth	6	Twenty first	4	Thirty-third	18
Tenth	6	Twenty second	17	Thirty-fourth	12
Eleventh	7	Twenty third	10	Thirty-fifth	3
Twelfth	12	Twenty fourth	12		

Total 546

*Includes deaths in Almshouse.

†Includes deaths in Municipal Hospital.

Nativity—United States, 428; foreign, 113; unknown, 5; people of color, 46; premature birth, 11; still born, 28.

Males, 289; females. 257; boys, 170; girls, 152.

The number of deaths, compared with corresponding week of 1891 and of last week, was as follows:

Week ending July 25, 1891, was 547.

Week ending July 16, 1892, was 577.

By order of the Board of Health,

MOSES VEALE,
Health Officer.

Attest:
J. V. P. TURNER,
Chief Registration Clerk.

ARMY, NAVY AND MARINE HOSPITAL SERVICE.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, U. S. Army, from July 10 to July 23, 1892.

Leave of absence for one month, with permission to apply for an extension of one month, is granted Colonel Charles Page, Assistant-Surgeon General, U. S. Army.

In addition to his other duties Major J. V. D. Middleton, Surgeon, U. S. Army, will take charge of the office and perform the duties of the Medical Director, Department of the East, during the absence on leave of Colonel Page, Medical Director.

By direction of the Secretary of War, Lieutenant-Colonel Charles R. Greenleaf, Assistant Medical Purveyor, U. S. Army, will proceed at the proper time to Montpelier, Vermont, and visit the camp of the Vermont National Guard during the period of its encampment, commencing August 23, 1892.

The leave of absence granted Major C. E. Munn, Surgeon, U. S. Army, for seven days, is hereby extended thirteen days.

Major J. K. Corson, Surgeon, U. S. Army, granted leave of absence for one month, to take effect on or about August 2, 1892, provided Capt. W. B. Banister, Assistant-Surgeon, U. S. A., shall have returned from leave of absence, with permission to apply for an extension of one month.

Major John O. Skinner, Surgeon, U. S. Army, granted leave of absence for four months on account of sickness, with permission to leave the Department of Texas.